

REMARKS

Claims 1-68 were pending in the current application. Reexamination and reconsideration of all pending claims are respectfully requested.

35 U.S.C. §103

Independent claims 1, 5, 6, 28-32, 39, 40, 44, 45, 56, 57, 59, 61, 63, 64, and 66-68 are pending in the application. The Office Action rejected claims 1 and 2, including independent claim 1, under 35 U.S.C. §103 based on Numminen et al., U.S. Patent 6,687,499 ("Numminen") in view of Walding, U.S. Patent 6,031,845 ("Walding") and Dipperstein, U.S. Patent 6,185,191 ("Dipperstein"). The Office Action rejected independent claim 30 under 35 U.S.C. §103 based on Numminen in view of Tiedemann Jr. et al., U.S. Patent 5,802,105 ("Tiedemann") and in further view of Gourdin et al., U.S. Patent 5,913,162 ("Gourdin"). The Office Action rejected claims 32-33 and 35-38, including independent claim 32, under 35 U.S.C. §103 based on Numminen in view of Walding and in further view of Dipperstein. The Office Action rejected dependent claim 34 under 35 U.S.C. §103 based on Numminen in view of Walding in further view of Dipperstein and in still further view of Gopalakrishnan et al., U.S. Patent 7,110,466 ("Gopalakrishnan"). The Office Action rejected claims 59 and 60, including independent claim 59, under 35 U.S.C. §103 based on Numminen in view of Tiedemann. The Office Action rejected claims 6-8 and 10, including independent claim 6, under 35 U.S.C. §103 also based on Numminen in view of Tiedemann. The Office Action rejected independent claim 5 under 35 U.S.C. §103 based on Numminen in view of Walding and in further view of Funk, U.S. Patent 6,766,164 ("Funk") and in still further view of Dipperstein. The Office Action rejected dependent claim 9 under 35 U.S.C. §103 based on Numminen in view of Tiedemann and further in view of Funk. The Office Action rejected dependent claim 24 under 35 U.S.C. §103 based on Numminen in view of Tiedemann and further in view of Buchholz, U.S. Patent 5,555,266 ("Buchholz"). The Office Action rejected independent claim 28 under 35 U.S.C. §103 based on Numminen in view of Tiedemann. The Office Action rejected claims 29, 39, 61-63, 65, 67, and 68, including independent claims 29, 39, 61, 63, 67 and 68, under 35 U.S.C. §103 based on Numminen in view of Kobayashi, U.S. Patent 6,333,932

("Kobayashi") and in further view of Sjoblom, U.S. Patent Publication 2002/0009053 ("Sjoblom"). The Office Action rejected independent claim 31 under 35 U.S.C. §103 based on Numminen in view of Kobayashi and in further view of Tiedemann and in still further view of Sjoblom. The Office Action rejected independent claims 45 and 56 under 35 U.S.C. §103 based on Numminen in view of Tiedemann. The Office Action rejected dependent claims 49-53 under 35 U.S.C. §103 based on Numminen in view of Tiedemann and further in view of Kobayashi. The Office Action rejected dependent claims 46-48 under 35 U.S.C. §103 based on Numminen in view of Tiedemann and further in view of Ikeda, U.S. Patent 5,636,212 ("Ikeda"). The Office Action rejected claims 57 and 58, including independent claim 57, under 35 U.S.C. §103 based on Numminen in view of Tiedemann and further in view of Kobayashi and in still further view of Ikeda and in even further view of Sjoblom. The Office Action rejected dependent claims 11-13, 15-20, 22, 23, and 25-27 under 35 U.S.C. §103 based on Numminen in view of Tiedemann and further in view of Kobayashi. The Office Action rejected claims 40-44, including independent claims 40 and 44, under 35 U.S.C. §103 based on Numminen in view of Oommen, U.S. Patent 6,799,203 ("Oommen") and in further view of Tiedemann. The Office Action rejected independent claims 64 and 66 under 35 U.S.C. §103 based on Numminen in view of Tiedemann and further in view of Kobayashi and in still further view of Ikeda and in yet further view of Sjoblom. The Office Action rejected dependent claims 14 and 21 under 35 U.S.C. §103 based on Numminen in view of Tiedemann and further in view of Kobayashi.

The Office Action objected to claims 54 and 55 but indicated these claims would be allowable if rewritten in independent form.

Applicants initially note that certain pending claims have been rejected on the basis of five separate references. Applicants submit that rejection of the claims presented on five separate references demonstrates hindsight reconstruction of the invention, which is improper. "A factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon ex post reasoning." *KSR International Co. v. Teleflex Inc.*, No. 04-1350, 550 U.S. ____ (2007). Applicants submit that the present Office Action relies extensively on ex post facto reasoning, which is improper.

Independent Claims 1 and 32 – Numminen in view of Walding and Dipperstein

Independent Claim 1

Applicants had amended claim 1 to recite that the test settings selected “comprise indications for configuring the reverse traffic channel, one or more auxiliary channels, or a combination thereof and indications of loop back packet transmission procedures to be performed during testing...” The Office Action finds these limitations in Dipperstein, when in fact Dipperstein does not provide selected test settings that “comprise indications for configuring the reverse traffic channel, one or more auxiliary channels, or a combination thereof...” Further, the teachings of Numminen and Walding are inapposite: Numminen fails to receive a first message having test settings selected from a plurality of possible test settings, but simply provides a “test signal” on the forward link and compares the signal to a known test signal, with no test settings provided as required by the claim language. Numminen, having not received the requisite test settings, cannot configure one or more channels based on selected test settings.

With respect to Dipperstein, Dipperstein simply provides a test set over an ISDN channel, without providing indications for configuring the channel, such as the ISDN channel. *See, e.g.*, Dipperstein, Abstract. The Office Action cites col. 3, ll. 11-17 and claims 6, 13, and 14 in rejecting this limitation. Office Action, p. 5. These citations either have nothing to do with configuring a channel or simply talk about the test being performed. For example, the column 3 passage indicates a user can select a bit error test (BERT), and the reference an claims cited speak of “a list of prescribed test parameter options,” but these are the parameters of the test conducted, not indications as to configuring a channel. Dipperstein does not disclose or suggest providing indications on configuring a channel, as that term is commonly understood and employed in the current specification. Configuring a channel is discussed at various places in the current specification, and is reflected in FIG. 5, described as:

...To initialize or change test configuration, the access network sends
an FTAPParameterAssignment message that includes a particular value for a

TransactionID field and may further include one or more attribute records for the FTAP mode flags maintained by the terminal, at step 512. Via the attribute records in the message, the access network is able to control the tests to be performed.

Upon receiving the FTAPParameterAssignment message from the access network, the terminal performs the FTAP Configuration Initialization procedure described above, at step 514. The terminal then sets its FTAP mode flags based on attributes, if any, included in the received message, at step 516. In particular, the received message may include a LoopBackMode attribute, an ACKChBitFixedMode attribute, a DRCFixedMode attribute, and/or a DRCCoverFixedMode attribute.

Specification, paragraphs [1053] and [1054].

Loop back mode is separately addressed in claim 1: “comprise indications for *configuring the reverse traffic channel, one or more auxiliary channels, or a combination thereof* and indications of *loop back packet transmission procedures to be performed during testing...*” Configuring channels is therefore configuring the transmission channel (reverse, auxiliary, or combination thereof), not configuring loop back procedure, which is a separate configuration provided by the language of the claim.

Dipperstein does speak about loop back, but fails to provide any disclosure beyond transmission of attributes of the test being performed and the loop back that occurs. To analogize, the claim is similar to requiring a television station to provide parameters as to how a channel is to be configured for testing versus the Dipperstein design simply saying that a certain television test pattern will be displayed at a certain time. Applicants further note that Dipperstein provides for certain “parameters” to be specified, but these parameters have nothing to do with configuring the reverse channel and/or auxiliary channels: data rate employed, length of time the test is run, bearer channel for loopback), but again, none of these are indications for configuring the reverse channel and/or auxiliary channels. Dipperstein, col. 3, ll. 23-26.

The cited claims of Dipperstein provide no further channel configuration indications. Claim 3 recites limitations having to do with performing loop back functions over the ISDN channels, while claims 13 and 14 include loop back limitations and conducting bit error rate tests. As noted, certain "prescribed test parameter options" are claimed, but these refer to the test being performed, not the configuration of the channel as claimed. Thus the present claims differ from Dipperstein, and the combination of Numminen, Walding, and Dipperstein.

As noted, Numminen simply provides a "test signal" and evaluates the test signal against a known test signal, nothing more. Numminen is summarized in the Abstract, and states that the design tests the functioning of a downlink by receiving the test signal in the downlink direction and comparing the received test signal to a known form of the test signal. Numminen, Abstract. The mobile station sends uplink a signal representing the information stored. Numminen, Abstract. Numminen fails to perform material requirements in claim 1, including but not limited to receiving a first message having the required test settings, and configuring channels based on selected test settings in the first message.

Thus Numminen provides a test signal on a forward link to a mobile device and merely compares the signal received at the mobile device to a known test signal. Numminen stores the results of the comparison. Numminen does not disclose or suggest receiving a first message having test settings included therein wherein the test settings comprise indications for configuring the reverse traffic channel, one or more auxiliary channels, or a combination thereof and indications of loop back packet transmission procedures to be performed during testing ("receiving limitation") nor configure one or more channels based on the selected test settings ("configuring limitation").

With respect to the receiving limitation, the Office Action cites col. 7, ll. 18-20 and col. 11, ll. 4-6 of Numminen, which state in their entirety:

So test mode means that the mobile station to be tested is instructed to maintain a connection on a certain transmission channel. ... The names and specifications in this patent application associated with particular

systems or hardware are given by way of example only and do not affect the applicability of the invention to all mobile communication systems in which a mobile station can operate on data, traffic and control channels.

These passages say nothing about “a first message having included therein test settings selected from a plurality of possible test settings ... wherein the test settings selected comprise indications for configuring the reverse traffic channel, one or more auxiliary channels, or a combination thereof and indications of loop back packet transmission procedures to be performed during testing” as required by claim 1, as previously amended. The cited passages simply say that the mobile station maintains a connection on a certain transmission channel. The testing procedure outlined in Numminen is not as intricate as the functionality claimed in claim 1, but instead merely operates by connecting the mobile station to testing equipment, and comparing a signal received to a known signal over a connection maintained on a certain channel. The Numminen device operates not by receiving test settings and configuring channels according to test settings specifically claimed, but by connecting the mobile device to test equipment and performing signal transmission and comparison functions. *See, e.g.*, Numminen, col. 6, ll. 45-48 (“as testing...is begun, an arrangement according to FIG. 2 is first set up in which the mobile station to be tested is connected in a known manner to the test equipment...”).

The Office Action states at p. 3 that “test mode means that the mobile station to be tested is instructed to maintain a connection on a certain transmission channel.” This is an incorrect interpretation of test settings, as the term is commonly understood and employed in the specification, as maintaining a connection is not a test setting selected from among a plurality of possible test settings, as claimed. The Office Action implies that by simply running a test, in the basic manner disclosed in Numminen, test settings for the channel are employed from a plurality of possible test settings. This is an incorrect interpretation of “test settings,” particularly in the context of the language of the claim. The claim requires a first message having included therein selected test settings, wherein the test settings selected comprise indications for configuring the reverse traffic channel, one or more auxiliary channels, or a combination thereof and indications of loop back packet transmission

procedures to be performed during testing. No message is provided by the Numminen design that includes selected test settings as the term “test settings” is used in the claim.

The cited passages simply do not go as far as the Office Action alleges– the cited passages merely say that the mobile station to be tested is instructed to maintain a connection on a certain transmission channel. The Office Action is simply inventing functionality where none is actually disclosed or suggested.

Regarding the configuring limitation, since no test settings are received, the Numminen mobile device does not configure one or more channels based on selected test settings. The Office Action cites col. 7, ll. 46-47, col. 7, ll. 59-61, and col. 9, ll. 10-11 of Numminen (p. 3, Office Action), as well as the aforementioned col. 7, ll. 18-20 and col. 11, ll. 4-6 (p. 11, Office Action). The passages cited at p. 3 of the Office Action state:

At first the test equipment sends a comparison and statistical operation start command associated with the data channel, which command can be called CLOSE_Multi-slot_loop_CMD.... The mobile station closes, i.e. activates, the test loop in a certain time after it has sent the acknowledge.... The mobile station acknowledges the message using a CLOSE_Multi-slot_loop_ACK whereby the test equipment stops said timer.

These passages only say that a start command is issued, the mobile station closes the test loop, and the mobile station acknowledges the message. These passages thus discuss sending a start command, activating the test loop, acknowledging a message, and stopping a timer. These say nothing about configuring a channel or channels based on selected test settings – test setting indications are not employed in the foregoing passages, and certainly not test setting indications comprising procedures for configuring the reverse traffic channel, one or more auxiliary channels, or a combination thereof and loop back packet transmission procedures to be performed during testing.

As noted, the Office Action also again cites col. 7, ll. 18-20 and col. 11, ll. 4-6 in rejecting the configuring limitation, but these have nothing to do with configuring a channel

or channels based on received test settings as test settings received are defined. The cited passages simply say that the mobile station maintains a connection on a certain transmission channel, and that various channels may be employed. This does not show "configuring the at least one or more channels based on the selected test settings..." as required by claim 1, as amended.

Thus claim 1 is not obvious based on Numminen in view of Walding and in further view of Dipperstein. Claim 2 is allowable as it includes limitations not shown by the combination of Numminen, Walding, and Dipperstein.

Independent Claim 32

As with claim 1, claim 32 is not obvious in view of Numminen in view of Walding and in further view of Dipperstein. Claim 32 also includes a "receiving limitation" and a "configuring limitation," not shown by the references, alone or in combination. The receiving limitation of claim 32 speaks of possible test settings for one or more auxiliary channels, while the configuring limitation speaks of configuring each auxiliary channel based on test settings applicable to the auxiliary channel. The test settings selected in claim 32 "comprise indications for configuring each auxiliary channel and indications of procedures to be performed by each auxiliary channel during testing..."

The Office Action again cites Dipperstein, col. 3, ll. 11-17 and claims 6, 13, and 14, but Dipperstein simply provides for testing over an ISDN channel, without providing indications for configuring the channel, such as the ISDN channel. The cited passages have nothing to do with configuring a channel but simply discuss parameters of the test being performed. Dipperstein does not disclose or suggest providing indications on configuring a channel, as that term is commonly understood and employed in the current specification.

The Dipperstein passages say nothing about "a first message having included therein test settings selected from a plurality of possible test settings, wherein the test settings selected comprise indications for configuring each auxiliary channel and indications of procedures to be performed by each auxiliary channel during testing ..." as required by

claim 32. The cited passages simply say that BERT testing occurs according to a set of options, but does not specify configuration each auxiliary channel and indicating procedures to be performed as required by the express language of the claim. Configuring of a channel is simply missing from the Dipperstein reference discussed in the present specification.

Further, the Numminen device does not receive test settings and configure channels according to test settings as required by the claim language. The testing procedure outlined in Numminen is not as intricate as the functionality claimed in claim 32, merely operating by connecting the mobile station to testing equipment, and comparing a signal received to a known signal over a connection maintained on a certain channel.

The Office Action further cites Numminen, col. 6, ll. 54-56 and col. 6, l. 66 – col. 7, l. 8 in rejecting the receiving limitation with respect to auxiliary channels. These passages state that test equipment sends an immediate assignment 503 which may include various instructions for the mobile station. The argument is made on pp. 10-11 of the Office Action that the immediate assignment indicates the contents of the “test octet” and that a value “can be reserved to indicate that in response to the immediate assignment 503 the mobile station has to set itself into a special test mode...” wherein the special test mode includes not informing the MM layer about the link. Numminen, col. 7, ll. 1-12. This does not conform to the claim limitations, as amended, which require that the selected test settings “comprise indications for configuring each auxiliary channel and indications of procedures to be performed by each auxiliary channel during testing.” The Office Action, at p. 11, cites the CLOSE_Multi-slot_loop_CMD, which simply indicates a comparison and statistical operation start command associated with the data channel, and has nothing to do with configuring each auxiliary channel based on test settings applicable to the auxiliary channel. In short, Numminen simply sends a test signal, compares the test signal to a known test signal, and does not configure an auxiliary channel based on test settings provided as claimed.

The cited passages simply do not go as far as the Office Action alleges— the cited passages merely say that the mobile station to be tested is instructed to maintain a connection on a certain transmission channel. The test settings contents and auxiliary

channel configuring based on test settings, required in claim 32, are not shown in the cited Dipperstein and/or Numminen references, alone or in combination:

Regarding the claim 32 configuring limitation, since no test settings as claimed are received, the Numminen mobile device does not configure one or more channels based on selected test settings as test settings are defined in claim 32. The cited passages only say that a start command is issued, the mobile station closes the test loop, and the mobile station acknowledges the message. These passages thus discuss sending a start command, activating the test loop, acknowledging a message, and stopping a timer. These say nothing about configuring a channel or channels based on selected test settings as claimed. Test settings such as those claimed are not employed in the cited passages.

The remaining limitations of claim 32 include the phrase “test settings,” and as discussed above, no test settings as claimed are provided in Numminen. For example, Numminen alone, or in combination with Walding, do not disclose “transmitting each configured auxiliary channel in accordance with the applicable test settings...”

Thus claim 32, as amended, is not obvious based on Numminen in view of Walding. Claims depending from allowable claim 32 are allowable as they include limitations not shown by the combination of Numminen and Walding.

Independent Claims 6, 28, 45, 56, and 59 – Numminen in view of Tiedemann

Independent Claim 6

Applicants focus on the following limitation of claim 6:

identifying parameter values descriptive of the test packets in the first data transmission and excluding known test data, wherein the parameter values for each test packet comprise at least one of a serving sector from which the test packet was received, a sequence number of the test packet, and a length of the test packet;

The Office Action contends that, interpreting the word “descriptive” broadly, Tiedemann shows a “sequence number” of a test packet. This is simply wrong. The Office Action is misinterpreting the term sequence number, or characterizing a sequence number as what it is not. A sequence number is commonly understood to one skilled in the art to simply be an identifying number for one element in the sequence. Applicants attach hereto as Exhibit A a definition of “sequence number” as it applies in the computing field:

lib.daemon.am/Books/www.gerhardmueller.de/docs/UnixCommunicationFacilities/ip/node16.html

In the present context, the term “sequence number” has similar connotation, that being “[a] unique number for every packet on a particular connection maintained by a reliable transport layer service. The sequence number allows the transport layer to see if any packets were lost or delivered out of sequence by the underlying network and data layers.” Thus a sequence number is a unique number for the pseudorandom bit sequence, not the pseudorandom bit sequence itself. Analogizing, sequence number 111 may include the pseudorandom bit sequence 010100111101. The sequence number and the pseudorandom bit sequence are two distinct entities, not the same things. Thus the characterization at p. 57 of the Office Action, “each packet of test data...comprises a pseudorandom bit sequence (i.e. sequence number)...” is simply wrong – a sequence number is not a pseudorandom bit sequence, as sequence number 111 is not pseudorandom bit sequence 010100111101.

The “identifying parameter values” limitation of claim 6 is understood in the context of the previous limitation, which requires “receiving a first data transmission comprising test packets of known test data via a first channel.” This requires (1) a first data transmission comprising (2) test packets of (3) known test data. With these three distinct items in mind, the “identifying” limitation requires identifying (4) parameter values descriptive of the test packets [2] in the first data transmission [1] and excluding known test data [3]. Parameter values [4] comprise at least one of three items listed, including (5) sequence number and length of the test packet.

Tiedemann states that each packet of test data provided by test circuit 33 “comprises a pseudorandom bit sequence of predetermined length.” Tiedemann, Col. 6, ll. 13-16. Such a pseudorandom bit sequence could begin with, for example, 010100111101. After encoding the pseudorandom test data and subsequent transmission over a communication channel, the received test data is compared to a replica thereof synchronously generated within the receive station, and integrity of data transmission may be evaluated on the basis of the comparison between the received test data and the generated replica. Tiedemann, col. 6, ll. 16-23.

While Tiedemann encodes and transmits a pseudorandom bit sequence of predetermined length, the predetermined length is not “identified” as a parameter value descriptive of the test packet, and the “sequence number,” a unique number associated with the pseudorandom bit sequence, such as sequence number 111, is also not “identified” as a parameter value descriptive of the test packet. For example, a 256 bit pseudorandom code is known to be 256 bits, but length of the test packet is not identified in the transmission nor said to be needed for the comparison – the length is simply the length of the pseudorandom bit sequence. With respect to sequence number, based on the definition above and the common understanding of a “sequence number,” Tiedemann does not provide a test packet comprising a sequence number of the test packet. Tiedemann provides a pseudorandom bit sequence. Thus the Tiedemann design does not identify parameter values descriptive of the test packets in a data transmission, where parameter values comprise at least one of a serving sector, a sequence number, and a length as claimed. No such identifying as claimed occurs in Tiedemann – the pseudorandom bit sequence is generated, transmitted, and compared to the replica without need for identifying parameters, such as length or sequence number, descriptive of the test packets.

The Office Action relies certain “pseudorandom bit sequence” statements in Tiedemann, stating “wherein the length of the pseudorandom bit sequence is not part of the known test data, i.e. is not a field element in the packet.” Office Action, pp. 57-58. While length and sequence number are not part of the Tiedemann “pseudorandom bit sequence,” this misses the point: the claim is seeking to protect “identifying parameter values

descriptive of the test packets in the first data transmission and excluding known test data,” or the process of identifying parameter values descriptive of the test packets, such as length or sequence number. The Tiedemann design does not do this, does not identify parameter values descriptive of the test packets as claimed, even though the Tiedemann test packet/pseudorandom bit sequence (and every other test packet, for that matter) has, for example, a length associated therewith. The key distinction is that neither the length nor the sequence number is separately or specifically identified or provided in the Tiedemann pseudorandom bit sequence.

The Office Action argues, at approximately p. 58, that Tiedemann must identify the parameters identified, length and sequence number, for example. This broad generalization is simply stated without identifying specific passages in Tiedemann wherein the length and sequence number are “identified.” Applicants submit that the reason the Office Action fails to identify specific passages in Tiedemann where “identifying parameter values descriptive of the test packets in the first data transmission and excluding known test data, wherein the parameter values for each test packet comprise at least one of a serving sector from which the test packet was received, a sequence number of the test packet, and a length of the test packet” is because such identifying cannot be shown by Tiedemann. As noted, the Tiedemann design does employ pseudorandom bit sequences but fails to identify parameter values descriptive of the test packets, excluding known test data, wherein parameter values comprise at least one of a serving sector, a sequence number, and a packet length. Applicants submit that Tiedemann is therefore missing a material limitation of the present claim 6.

Numminen also does not show this limitation. Col. 1, ll. 35-39 of Numminen had been identified, but this section describes a conventional loop back test mode where a mobile station sends back known bits, such as the bits received on the downlink, and parameter values descriptive of test packets in the first data transmission and excluding known test data are not shown by this passage, or by the combination of Numminen and Tiedemann.

Claim 6 is therefore not obvious based on Numminen in view of Tiedemann, and claims depending from claim 6 are allowable as they include limitations not shown in the cited references, alone or in combination.

Independent Claim 28

The Office Action rejects claim 28 for largely the same reasons as claim 6. Applicants again note the “parameter identifying” limitation of claim 28:

identify parameter values descriptive of the test packets in the first data transmission and excluding known test data, wherein the parameter values for each test packet comprise at least one of a serving sector from which the test packet was received, a sequence number of the test packet, and a length of the test packet;

As with claim 6, the Office Action rejects the “parameter identifying” limitation of claim 28 based on Tiedemann and the “pseudorandom bit sequence ... of predetermined length (column 6 lines 13-15 [of Tiedemann] and wherein length of the pseudorandom bit sequence is not part of the known test data).” Office Action, p. 59.

As noted, while Tiedemann encodes and transmits a pseudorandom bit sequence of a certain length, the length is not “identified” as a parameter value descriptive of the test packet. Further, the “sequence number” is not identified as a parameter value descriptive of the test packet, and it is only through an improper reading of Tiedemann that such an identification could be said to be shown or exist in the reference. The Tiedemann design does not identify parameter values descriptive of the test packets in a data transmission, where parameter values comprise at least one of a serving sector, a sequence number, and a length as claimed. No such identifying as claimed occurs in Tiedemann – the pseudorandom sequence is generated, transmitted, and compared to the replica without need for identifying parameters (such as length and sequence number) descriptive of the test packets.

The rejection of claim 28 continues to perpetuate the notion that a “pseudorandom bit sequence” is the same as a “sequence number.” Office Action, p. 60 (“since each packet comprises a distinct pseudorandom bit sequence of predetermined length, pseudorandom bit sequence is indeed identifiable as a parameter...””) The fact that a pseudorandom bit sequence is transmitted does not mean that the length or sequence number is identified, and the Office Action points to no such identifying occurring in Tiedemann.

The claim is seeking to protect “identifying parameter values descriptive of the test packets in the first data transmission and excluding known test data,” or the process of identifying parameter values descriptive of the test packets, such as length. The Tiedemann design does not do this, does not identify parameter values as claimed. The length and sequence number are not separately or specifically identified in Tiedemann.

Numminen also does not show this limitation. Col. 1, ll. 35-39 of Numminen had been identified, but this section describes a conventional loop back test mode where a mobile station sends back known bits, such as the bits received on the downlink, and parameter values descriptive of test packets in the first data transmission and excluding known test data are not shown by this passage, or by the combination of Numminen and Tiedemann.

Claim 28 is therefore not obvious based on Numminen in view of Tiedemann.

Independent Claim 45

With respect to claim 45, Applicants focus on the following limitation:

forming a plurality of test packets for transmission on the traffic channel, the plurality of test packets comprising information for a plurality of rates being tested for the traffic channel;

This “forming” limitation, and particularly the “plurality of test packets comprising information for a plurality of rates being tested for the traffic channel” is purportedly shown by Tiedemann, including the disclosure of Table II and certain associated text therein (Col.

9, ll. 30-33). Table II lists various rates and test bits per frame. This is not “the plurality of test packets comprising information for a plurality of rates being tested for the reverse traffic channel.” While the Tiedemann listing of rates represents “test bits per frame,” it is not information in a plurality of test packets. The “test bits per frame” in Tiedemann specifically is not provided in the Tiedemann test packets; rather, it is the bits per frame at which the Tiedemann data packets are transmitted. The claim requires a container (test packets) comprising information for multiple metrics (rates being tested), while Tiedemann shows multiple metrics. These are two different concepts, and again, the Tiedemann test packets do not include this information.

The Office Action addresses this by ignoring the clear and plain meaning of the claim language, specifically the word “comprising.” When a plurality of test packets “comprises” (or “comprising”) information for a plurality of rates being tested for the reverse traffic channel, this means that the plurality of test packets *includes or contains* information for a plurality of rates being tested. Again, the container/metrics analogy applies – the test packets must contain information for a plurality of rates being tested.

The Office Action ignores this plain meaning and states “The claim does not state each packet has multiple rates information, rather plurality of packets have multiple rates information.” Office Action, p. 61. This is somewhat unclear, but appears to possibly be saying that each packet of the plurality of packets includes rate information. If that is what is being said, then Tiedemann still does not show single packets with single rates provided therein, and Table II certainly does not show this. Applicants specifically do not interpret the claim in the manner suggested, but instead the plurality of packets include or comprise information for a plurality of rates being tested. Tiedemann simply does not do this, nor does Tiedemann do what the Office Action contends. Transmitting a packet at a data rate is simply different from transmitting a packet including or comprising information for a plurality of rates being tested.

Thus claim 45 is not obvious in view of the combination of Numminen and Tiedemann. Claims depending from claim 45¹ are not obvious as they include limitations not found in the cited references, alone or in combination.

Independent Claim 56

Claim 56 includes a limitation similar to the "forming" limitation of claim 45:

form a plurality of test packets for transmission on the traffic channel, the plurality of test packets comprising information for a plurality of rates being tested for the traffic channel;

As noted with respect to claim 45, "test packets comprising information for a plurality of rates being tested for the traffic channel" are not shown by Tiedemann, nor by the combination of Numminen and Tiedemann. For the reasons presented above, claim 56 is not obvious in view of the combination of Numminen and Tiedemann.

Independent Claim 59

Claim 59, and specifically the limitation of:

¹ The Office Action continues to rely on FIG. 783 and the "BOM cell" of Kobayashi in rejecting, for example, dependent claims 49-53 (see, e.g., p. 41 of the Office Action). As previously noted, the cited Col. 2, ll. 55-67 passage of Kobayashi talks about a destination address (DA) and a source address (SA) as the only pertinent information required in testing the wired network. No mention is made of MID, SN, the L2-PDU, or anything related to FIG. 783 in describing the Kobayashi testing function.

Applicants therefore submit that Kobayashi, while showing that at Level 2, MID and SN are employed, apparently use the cited L2-PDU aspects while in operation, not during testing. The testing performed simply relies on SA and DA when test packets are transmitted for testing purposes in Kobayashi. Thus the statement in the Office Action that "Kobayashi further teaches the L2-PDU shown in FIG. 783 is a BOM cell" is incorrect. BOM is "Beginning of Message," and the "L2 Protocol Data Unit" shown in FIG. 783 is the format employed in the L2-PDU. FIG. 783, as stated in Kobayashi, "shows the format of the L2-PDU and L3-PDU".

The Office Action further contends "The 2 bytes preceded by the header field stores a segment type ST, sequence number SN, and message identifier MID..." Office Action, p. 41. While this may be true during operation, these fields are not employed during testing, and thus Kobayashi cannot be said to "[form] a plurality of loop back packets for the plurality of received test packets, wherein each loop back packet covers zero or more test packets, excludes known test data, and includes the transmission source and the sequence number of each covered test packet". Kobayashi does not show that the loop back packet includes the transmission source and the sequence number of each covered packet as claimed in claim 45 and claims depending therefrom.

receiving a plurality of test packets at a plurality of rates on the reverse traffic channel, the plurality of test packets comprising information for a plurality of rates being tested for the reverse traffic channel;

These limitations are found by the Office Action in Tiedemann, and the Office Action relies on the Abstract and col. 9, ll. 30-33 and Table II of Tiedemann. The Abstract of Tiedemann says that each data packet is assigned one of a multiplicity of data rates in accordance with a first pseudorandom process, and is transmitted at the data rate assigned thereto. This is not “the plurality of test packets comprising information for a plurality of rates being tested for the reverse traffic channel.” This passage of the abstract states that packets are transmitted at a certain rate, while the claim requires that the test packets “compris[e] information” for a plurality of rates being tested. These are different – to analogize, the claim is similar to a claim for a car carrying a list of metrics, such as speed at which the car can operate, versus the reference showing that the car operates at certain metrics, such as at certain speeds or a specific speed. It is the metric itself versus a carrier containing information about the metric. These are two different things.

The passage at Col. 9, ll. 30-33 and Table II do not contradict the foregoing. Table II lists various rates and test bits per frame. This is not “the plurality of test packets comprising information for a plurality of rates being tested for the reverse traffic channel.” This is a list of test bits per frame; it is not information in a plurality of test packets. The information of Table II is not included in the Tiedemann test packets; rather, it is the bits per frame that the Tiedemann data packets are transmitted.

Numminen also does not show this limitation. Claim 59 is therefore not obvious based on Numminen in view of Tiedemann.

Independent Claim 30 – Numminen in view of Tiedemann and in further view of Gourdin

Claim 30 includes various limitations not shown in the cited references. Claim 30 requires “sending a first data transmission via a first channel” and “receiving a second data

transmission via a second channel...” The Office Action equates the “first transmission” to Numminen’s transmission of a test signal, discussed above, which is simply a test signal that is compared to a known test signal. The “second transmission” claimed is said to be shown by col. 10, ll. 27-34 of Numminen, which does not show receiving a second data transmission via a second channel, but instead discusses comparing the received test signal with the known test signal. The passages of Numminen cited (col. 10, ll. 27-34, and col. 10, ll. 42-45 (Office Action, pp. 7-8)) state:

In step 603 the mobile station compares the received signal to a corresponding locally generated signal and stores statistical information about detected errors in the same manner as described above in connection with the test arrangement proper. At certain intervals the mobile station sends according to step 604 extracts from the stored statistical data to the base station, which sends them further according to step 605 to a quality control station in the cellular radio system.

...

Likewise it can be specified that mobile stations send the statistical data uplink as part of the messages that they would send in any case e.g. to update their location.

These passages say that the comparison is made, statistical information about detected errors is stored and at certain intervals statistical errors can be transmitted. This is materially different from the limitation claimed, which requires “receiving a second data transmission via a second channel, wherein the second data transmission includes parameter values descriptive of the test packets in the first data transmission, excludes known test data, and further comprises a record for each test packet correctly received...” As discussed, Numminen does not provide such a second data transmission, does not include parameter values descriptive of the test packets in the first data transmission and exclude known test data, and clearly does not comprise a record for each test packet correctly received. Thus

the beginning of this “second transmission” limitation is not shown by the cited Numminen reference.

Further, with respect to the contents of the parameter values, claim 30 requires “wherein the parameter values are configured to be used to update a plurality of variables employable in testing the one or more channels.” The Office Action pulls this from Goudin, which does not disclose nor suggest parameter values configured to be used to update a plurality of variables employable in testing one or more channels. Goudin simply provides information from a terminal to a mobile station, not information to update variables but instead to perform the requisite testing. The passages of Goudin cited do not show a design with parameter values configured to be used to update a plurality of variables employable in testing one or more channels. The parameters in Goudin provided are the number of the cell under test, etc., but these are values provided, not information to update variables as required by the claim language.

For these reasons, claim 30 is not obvious based on Numminen in view of Tiedemann and Goudin.

Independent Claim 5 – Numminen in view of Walding in view of Funk and Dipperstein

Applicants focus on the “receive” limitation of claim 5, which states:

receive a first message having included therein test settings selected from among a plurality of possible test settings for one or more channels comprising a reverse traffic channel, one or more auxiliary channels, or a combination thereof, wherein the test settings selected comprise indications for configuring the reverse traffic channel, one or more auxiliary channels, or a combination thereof and indications of loop back packet transmission procedures to be performed during testing;

The Office Action cited certain passages of Numminen, specifically col. 7, ll. 18-20 as well as col. 11, ll. 4-6 in rejecting this limitation. Applicants dispute that Numminen

includes test settings as previously discussed. The Office Action also cites Dipperstein for the “test settings selected comprise indications for configuring...” limitation.

Dipperstein is discussed above, but briefly, Dipperstein simply provides a test set over an ISDN channel, without providing indications for configuring the channel, such as the ISDN channel. *See, e.g.*, Dipperstein, Abstract. The Office Action again cites col. 3, ll. 11-17 and claims 6, 13, and 14 in rejecting this limitation. Office Action, p. 25. These citations either have nothing to do with configuring a channel or simply talk about the test being performed. For example, the column 3 passage indicates a user can select a bit error test (BERT), and the reference an claims cited speak of “a list of prescribed test parameter options,” but these are the parameters of the test conducted, not indications as to configuring a channel. Dipperstein does not disclose or suggest providing indications on configuring a channel, as that term is commonly understood and employed in the current specification.

The cited claims of Dipperstein provide no further channel configuration indications. Claim 3 recites limitations having to do with performing loop back functions over the ISDN channels, while claims 13 and 14 include loop back limitations and conducting bit error rate tests. As noted, certain “prescribed test parameter options” are claimed, but these refer to the test being performed, not the configuration of the channel as claimed. Thus the present claim differs from Dipperstein, and the combination of Numminen, Walding, Funk, and Dipperstein.

The Numminen passages cited simply say that the mobile station maintains a connection on a certain transmission channel, and the Numminen device operates not by receiving test settings and configuring channels according to test settings. The testing procedure outlined in Numminen is not as intricate as the functionality claimed in claim 5, merely operating by connecting the mobile station to testing equipment, and comparing a signal received to a known signal over a connection maintained on a certain channel.

The Office Action further cites various passages from Col. 7 of Numminen, but these passages do not demonstrate the test settings recited in the claim limitations, as amended, which require that the selected test settings “comprise indications for configuring

the reverse traffic channel, one or more auxiliary channels, or a combination thereof and indications of loop back packet transmission procedures to be performed during testing.”

The cited passages simply do not go as far as the Office Action alleges– the cited passages merely say that the mobile station to be tested is instructed to maintain a connection on a certain transmission channel, and an indication that a certain layer not be informed about the link is transmitted. The test settings contents required in claim 5 are not shown in the cited Numminen, Walding, Funk, and/or Dipperstein references, alone or in combination.

Further, regarding the claim 5 “configure” limitation, since no test settings as claimed are received, the Numminen mobile device does not configure the one or more channels based on the test settings in the first message as test settings are defined in claim 5. Cited passages only say that a start command is issued, the mobile station closes the test loop, and the mobile station acknowledges the message. These passages thus discuss sending a start command, activating the test loop, acknowledging a message, and stopping a timer. These say nothing about configuring a channel or channels based on selected test settings as claimed. Test settings such as those claimed are not employed in the cited passages.

The remaining limitations of claim 5 include the phrase “test settings,” and as discussed above, no test settings as claimed are provided in Numminen, Walding, Funk, and/or Dipperstein. For example, Numminen alone, or in combination with Walding, Funk, and/or Dipperstein, do not “transmit a plurality of loop back packets via the reverse traffic channel if indicated by the selected test settings ...”.

Thus claim 5 is not obvious based on Numminen in view of Walding and in further view of Funk and in still further view of Dipperstein. Claims depending from allowable claim 5 are allowable as they include limitations not shown by the combination of Numminen, Walding, Funk and/or Dipperstein.

Independent Claims 29, 39, 61, 63, 67 and 68 – Numminen in view of Tiedemann in view of Kobayashi

Applicants focus on claim 29 and the following limitation of claim 29:

forming a plurality of loop back packets for the plurality of received test packets, wherein each loop back packet covers zero or more test packets, excludes known test data, and includes the transmission source and the sequence number of each covered test packet;

This limitation is said in the Office Action to be shown by Kobayashi. (*See, e.g.*, Office Action, p. 25). The Kobayashi reference is said to be a “Connectionless Communication System, its Test Method, and Intra-Station Control System.” Kobayashi discusses both wired network operation, including certain aspects such as error logging while in operation, as well as the “test method” referenced in the title.

The passage cited in the Office Action, Col. 2, ll. 55-67 of Kobayashi, merely talks about a destination address (DA) and a source address (SA) as the only pertinent information required in testing the wired network. No mention is made of anything beyond the destination address and the source address of test packet.

Claim 29 requires that each test packet “includes the transmission source and the *sequence number* of each covered test packet...” (emphasis added). A sequence number, as discussed above, is a specific, unique identifying number, and the present claims require that both a transmission source and a sequence number be provided. Kobayashi does provide a DA and an SA in each Kobayashi test packet, but fails to provide a transmission source. The testing performed simply relies on SA and DA when test packets are transmitted for testing purposes in Kobayashi. Kobayashi does not show that the loop back packet includes the transmission source and the sequence number of each covered packet. Neither of the other references cited (Numminen or Tiedemann) show this included in a loop back packet as claimed. Thus claim 29 is not obvious in view of Numminen, Tiedemann, and Kobayashi.

The Office Action finds providing the sequence number in test packets in paragraphs [0023] and [0026] of Sjoblom. Paragraph [0023] of Sjoblom simply says that the node checks whether packets sent are duplicates, but does not state that sequence numbers are employed in any manner in test packets. Applicants first note that Sjoblom does not deal with loop back packets in the cited paragraphs. Further, paragraph [0026] does use the phrase “sequence numbers,” but does not state that sequence numbers are provided in test packets, or that each loop back packet includes the sequence number of each covered test packet. The entirety of the pertinent Sjoblom passage in paragraph [0026] states “test packets are deleted because their *sequence numbers were not in the release message*” (emphasis added). First, this statement confirms the definition of “sequence number” provided above and also confirms that the concept of sequence numbers is not provided in Tiedemann as applied to the claims above. Further, this paragraph [0026] passage states that sequence numbers are not in the Sjoblom test packet (again, no loop back packet is shown in Sjoblom), but are specifically in the release message – a completely different entity. This passage does not say that the test packet includes a sequence number. Thus Sjoblom does not show “each loop back packet ... includes the transmission source and the sequence number of each covered test packet” as claimed.

The other claims cited, claims 39, 61, 63, 67 and 68, include similar limitations (e.g. claim 63: “includes the transmission source and the sequence number of each covered test packet”), a limitation not shown by the combination of Numminen, Tiedemann, Kobayashi, and/or Sjoblom. Thus these claims are not obvious in view of Numminen, Tiedemann, Kobayashi, and Sjoblom.

Independent Claim 31 – Numminen in view of Kobayashi in view of Tiedemann and in further view of Sjoblom

As with the foregoing claims discussed with respect to Kobayashi and Sjoblom, claim 31 includes a similar “a transmission source and a sequence number” limitation (“receiving a plurality of loop back packets via a reverse traffic channel, wherein each loop back packet covers zero or more test packets, excludes known test data, and includes a transmission source and a sequence number of each covered test packet”). Kobayashi

includes no such transmission source *and sequence number* in the loop back packet, and the Sjoblom sequence number is a sequence number provided in the release message, not in the loop back packet. Sjoblom, paragraph [0026]. Thus each loop back packet including a sequence number of each covered packet is a limitation not shown by Kobayashi and/or Sjoblom, and/or the combination of Numminen, Kobayashi, Tiedemann, and Sjoblom. Thus these claims are not obvious in view of Numminen, Kobayashi, Tiedemann, and Sjoblom.

Independent Claims 40 and 44 – Numminen in view of Oommen and in further view of Tiedemann

Claims 40 and 44 have been amended to recite “wherein collecting the first statistic occurs while performing testing.” Collecting the first statistic occurs, in both claims 40 and 44, while in the idle state. The Office Action cites Numminen, col. 10, ll. 1-8 which generally describes the idle mode, wherein “it receives from base stations certain downlink messages and sends occasionally location update messages uplink.” *Id.* This describes idle mode operation wherein testing is not being performed, nor collecting statistics. Collecting of statistics does not occur in idle mode within Numminen, and is not shown by the cited passage.

The Office Action finds this limitation in Tiedemann, said to exist at col. 14, ll. 40-57. This strained reading of Tiedemann in combination with Numminen shows nothing similar to the present limitation, which states “collecting a first statistic for a first parameter while in an idle state and not exchanging data via the link, wherein collecting the first statistic occurs while performing testing...” This requires collecting a first statistic for a first parameter while performing testing in an idle state and not exchanging data via the link. The Numminen reference fails to collect statistics or collect statistics while in an idle state or operate in an idle state while performing testing. The cited Tiedemann paragraph speaks of detecting CRC errors during testing but says nothing about an idle state. In reality, the combination of these references, while only marginally showing any of the limitations claimed, does not show “collecting a first statistic for a first parameter while in an idle state and not exchanging data via the link, wherein collecting the first statistic occurs while

performing testing...” These references have nothing to do with each other in this respect and cannot be said to show the claimed limitation, alone or in combination.

The Oommen reference is not cited in opposition to this limitation, and thus the combination of Numminen, Oommen and Tiedemann does not render claims 40 or 44 obvious, as the claims include limitations not shown by the cited combination. Claims depending from allowable independent claim 40, such as claims 41-43, are allowable as they include limitations not shown in the cited references, alone or in combination.

Independent Claims 57, 64, and 66 - Numminen in view of Tiedemann in further view of Kobayashi in still further view of Ikeda and in yet further view of Sjoblom

Independent Claim 57

Claim 57 includes two limitations, similar to those discussed above, that materially differ from the cited references:

receiving a first message having included therein a minimum rate and a maximum rate for data transmission on the reverse traffic channel; [the “receiving” limitation]

forming a plurality of test packets for transmission on the reverse traffic channel, wherein each test packet includes a sequence number of a test packet last transmitted at each of a plurality of possible rates; [the “forming” limitation]

The “each packet includes a sequence number” is said to be shown by Sjoblom, which as noted above states in pertinent part that “test packets are deleted because their *sequence numbers were not in the release message*” (emphasis added). This paragraph [0026] passage of Sjoblom states that sequence numbers are not in the Sjoblom test packet and the Sjoblom design fails to show a test packet including a sequence number of a test packet last transmitted at each of a plurality of possible rates. The Sjoblom passage does not say that the test packet includes a sequence number of a last transmitted test packet.

Thus Sjoblom does not show “each test packet includes a sequence number of a test packet last transmitted at each of a plurality of possible rates” as claimed in claim 57.

With respect to the “receiving” limitation, this requires a first message being received that includes a minimum and maximum rate for data transmission on the reverse traffic channel. It is not clear where this limitation is purportedly shown. However, Applicants note that none of Numminen, Tiedemann, Kobayashi, Sjoblom, or the Ikeda reference show receipt of a first message that includes a minimum and maximum rate for data transmission on the reverse traffic channel. Numminen, while discussing testing, does not show transmission of such a message. Tiedemann, while presenting various rates in Table II and the associated text, does not provide rates, particularly maximum and minimum transmission rates for data transmission on the reverse channel, in a test message. Ikeda, while discussing maximum and minimums, only discusses these with relation to bandwidth, not rate, and neither discloses nor suggests “receiving a first message having included therein a minimum rate and a maximum rate for data transmission on the reverse traffic channel.” Sjoblom and Kobayashi are completely missing any such limitation. Thus the receiving limitation of claim 57 is not shown by any of the five cited references, alone or in combination.

Applicants therefore submit that with respect to claim 57, the claim is not obvious in view of Numminen, Tiedemann, Kobayashi, Ikeda, and/or Sjoblom, alone or in combination. Claim 58, depending from claim 57, is allowable as it includes limitations not found in the cited references.

Independent Claims 64 and 66

Independent claims 64 and 66 include limitations similar to the “receiving” and forming” limitations of claim 57:

a receive data processor operative to receive a first message having included therein a minimum rate and a maximum rate for data transmission on a reverse traffic channel;

a controller operative to form a plurality of test packets for transmission on the reverse traffic channel, wherein *each test packet includes a sequence number of a test packet last transmitted at each of a plurality of possible rates, ...*

(Claim 64, emphasis added)

means for receiving *a first message having included therein a minimum rate and a maximum rate for data transmission on a reverse traffic channel;*

means for forming a plurality of test packets for transmission on the reverse traffic channel, wherein *each test packet includes a sequence number of a test packet last transmitted at each of a plurality of possible rates;*

(Claim 66, emphasis added)

As discussed above with respect to claim 59, the “sequence” limitations related to each “test packet” are not shown in Kobayashi and/or Sjoblom, and the “a minimum rate and a maximum rate” are not shown by Numminen, Tiedemann, Kobayashi, Sjoblom and/or Ikeda, alone or in combination. Thus claims 64 and 66 are not obvious in view of the combination of cited references, and claims depending from these references are also not obvious as they include limitations not shown in the cited references.

Combination of References

The combination of five separate disparate references, combined with stretching the references to appear similar to the claim language when in fact they are not, demonstrate ex post facto or hindsight reasoning in rejecting the present claims.

Applicants disagree that one of ordinary skill in the art would have a reason to combine the features disclosed in the numerous references presented, but particularly the most numerous references provided (Numminen, Tiedemann, Kobayashi, Ikeda, and

Sjoblom, as well as Numminen, Kobauyashi, and Sjoblom, Numminen, Oomman, and Tiedemann, etc.) Applicants submit that the combination of five separate and distinct references is unreasonable, and in many cases the three references combined is also unreasonable, and such combinations demonstrate ex post facto or hindsight reasoning in an attempt to piece together the claimed invention. Disparate inapposite portions of the cited references are simply pulled out of thin air and combined with other disparate references in an attempt to deprecate the claimed invention, which is improper.

The PTO has the burden of establishing a prima facie case of obviousness under 35 USC §103. The Patent Office must show that some reason to combine the elements with some rational underpinning that would lead an individual of ordinary skill in the art to combine the relevant teachings of the references. *KSR International Co. v. Teleflex Inc.*, No. 04-1350, 550 U.S. ____ (2007); *In re Fine*, 837 F.2d 1071, 1074 (Fed. Cir. 1988). Therefore, a combination of relevant teachings alone is insufficient grounds to establish obviousness, absent some reason for one of ordinary skill in the art to do so. *Fine* at 1075. In this case, the Examiner has not pointed to any cogent, supportable reason that would lead an artisan of ordinary skill in the art to come up with the claimed invention.

None of the cited references, alone or in combination, teaches the unique features called for in the claims. It is impermissible hindsight reasoning to pick a feature here and there from among the references to construct a hypothetical combination which obviates the claims.

It is impermissible, however, simply to engage in a hindsight reconstruction of the claimed invention, using the applicant's structure as a template and selecting elements from references to fill the gaps. [citation omitted]

In re Gordon, 18 USPQ.2d 1885, 1888 (Fed. Cir. 1991). As previously noted, distortion occurs using hindsight reasoning and ex post reasoning is disapproved. *KSR International Co. v. Teleflex Inc.*, No. 04-1350, 550 U.S. ____ (2007).

A large number of devices may exist in the prior art where, if the prior art be disregarded as to its content, purpose, mode of operation and general context, the several elements claimed by the Applicant, if taken individually, may be disclosed. However, the important thing to recognize is that the reason for combining these elements in any way to meet Applicant's claims only becomes obvious, if at all, when considered from hindsight in the light of the application disclosure. The Federal Circuit has stressed that the "decisionmaker must step backward in time and into the shoes worn by a person having ordinary skill in the art when the invention was unknown and just before it was made." *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1566 (Fed. Cir. 1987). To do otherwise would be to apply hindsight reconstruction, which has been strongly discouraged by the Federal Circuit. *Id.* at 1568.

To imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.

W.L. Gore & Assoc. v. Garlock, Inc., 721 F.2d 1540, 1553 (Fed. Cir. 1983). Therefore, without some reason in the references to combine the cited prior art teachings, with some rational underpinnings for such a reason, the Examiner's conclusory statements in support of the alleged combination fail to establish a prima facie case for obviousness. *See, KSR International Co. v. Teleflex Inc.*, No. 04-1350, 550 U.S. ____ (2007) (obviousness determination requires looking at "whether there was an apparent reason to combine the known elements in the fashion claimed...", citing *In re Kahn*, 441 F.3d 977, 988 (CA Fed. 2006) ("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness," KSR at 14).

Several reasons supporting the combination of references are provided in the present Office Action, but most if not all are merely conclusions used to justify choosing references based on aspects presented in the claims, or broad generalizations of desirable performance

for any device or method in this field of technology. It is always beneficial to improve operation, cost, efficiency, and so forth, but the question is what reasoning would have been used by one to take the teachings of, say, Sjoblom and modify them in a manner consistent with Numminen, Tiedemann, Kobayashi, and Ikeda in the manner suggested. Here, no such reason has been articulated. Conclusory reasoning such as that presented is improper hindsight reconstruction of the invention, and for this further reason, all pending claims are allowable over the cited references.

Accordingly, it is respectfully submitted that all pending claims fully comply with 35 U.S.C. § 103.

CONCLUSION


In view of the foregoing, it is respectfully submitted that all claims of the present application are in condition for allowance. Reexamination and reconsideration of all of the claims are respectfully requested and allowance of all the claims at an early date is solicited.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Applicants believe that no fees are due in accordance with this Response beyond those included herewith. Should any fees be due, the Commissioner is hereby authorized to charge any deficiencies or credit any overpayment to Deposit Account No. 17-0026.

Respectfully submitted,

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